

REMARKS

This amendment is responsive to the Office Action dated February 8, 2005. Applicant has amended claims 2-8 and 10-16. Claims 1-18 are pending.

Objections to the Title, Disclosure, and Drawings

In the Office Action, the Examiner objected to the title of the invention as “descriptive of an excessively wide area of technology.” Applicant has amended the title as suggested by the Examiner. Withdrawal of this objection is therefore respectfully requested.

In the Office Action, the Examiner objected to the disclosure, noting several typographical errors. Applicant has amended the disclosure as described above to correct the errors noted by the Examiner. Withdrawal of these objections is therefore respectfully requested.

The Examiner also objected to the drawings as not including certain reference signs (FIGS. 11, 25, and 27) or having instances of overlapping letters (FIGS. 7-9). As per FIG. 11, Applicant has amended the specification to refer to element “96” instead of element 95. As per FIGS. 7-9, 25, and 27, Applicant has amended the drawings to cure the deficiencies noted by the Examiner. As per FIG. 29, reference numeral “130” has been changed to reference numeral “134” to correspond with the text at page 19, lines 27-30. Replacement Sheets for FIGS. 7-9, 25, 27, and 29 can be found following this paper. Withdrawal of the objections to the drawings is therefore respectfully requested.

Claim Rejections Under 35 U.S.C. § 103

In the Office Action, the Examiner rejected claims 1-5 and 9-11 under 35 U.S.C. 103(a) as being unpatentable over Bakalash (US 6,385,604) in view of Joseph et al. (US 5,826,010) and Beall et al. (US 6,169,992). Claims 6 and 17-18 were rejected under 35 U.S.C. 103(a) as being unpatentable over Bakalash in view of Joseph et al. Claims 7-8 and 12-16 were rejected under 35 U.S.C. 103(a) as being unpatentable over Bakalash in view of Joseph et al. and Beall et al. (US 6,169,992).

Applicant respectfully traverses the rejections to the extent such rejections may be considered applicable to the claims as amended. The applied references fail to disclose or

suggest the inventions defined by Applicant's claims and provide no teaching that would have suggested the desirability of modification to arrive at the claimed invention.

For example, neither Bakalash, Joseph, nor Beall, either alone or in combination, teach or suggest a method or computer readable medium that presents a user interface for setting access rights to members of a data cube as well as access rights to transactional data from which the data cube was derived, and then formatting a web page based on those access rights (claims 1 and 9, for example); a method or system for controlling access to both the multidimensional data and the transactional data from which the multidimensional data was derived (claims 6 and 14, for example); nor a computer-readable medium comprising sets of data fields to store cube-level access rights associated with the dimensions and members of a data cube and to store transactional data access rights associated with fields of tables that store transactional data from which the data cube was derived (claim 17, for example).

In the Office Action, the Examiner correctly recognized that Bakalash contains no teaching of "setting access rights to members of a data cube" or its "transactional data" whatsoever. Nevertheless, the Examiner stated that Joseph "specifically provides for predefined access rights for undefined attributes, where access protections relating to different categories of users and different types of access can be established." Based on this reasoning, the Examiner concludes that it would have been obvious to modify the Bakalash system to achieve Applicant's claimed inventions.

Applicant respectfully disagrees with the Examiner's conclusions of obviousness with respect to independent claims 1, 6, 9, 14, and 17. As recognized by the Examiner, Bakalash, is not all concerned with setting of access rights at all, let alone to both a multidimensional datacube and to the transactional data from which the datacube was derived. As such, Bakalash contains absolutely no teaching, suggestion or motivation to incorporate setting access rights to both multi-dimensional data and the underlying transactional data from which the multi-dimensional data was derived.

The Examiner seeks to overcome these deficiencies by citing Joseph and Beall. However, Joseph merely describes a global naming service (GNS) that tracks users and resources within a computer network. Joseph states that for each object (e.g., user or printer), the GNS may maintain "attributes." Joseph provides exemplary attributes as "address, phone number,

country, and fax number for each user; or such as color capability, fonts, and location for each printer.” In other words, Joseph describes a system for generally setting access rights for different objects (users or printers) within a computing environment. Beall merely describes the use of software downloadable over the Internet to access remotely located information.

Based on these references, the Examiner concludes that that it would have been obvious to modify Bakalash “to limit the ‘access rights’ of a Bakalash ‘data cube,’ using the concept of attribute-specific permissions taught by Joseph, so that the Bakalash end users will be assuredly given the interface they need and one which is properly restricted.” The Examiner then states that “[p]resumably, a Balkash user can drill down among the dimensions to the level of individual transactions, if the need arise; the problem solved is that of the sharing of data with external parties such as suppliers, customers and investors.”

Thus, the Examiner’s argument can be summarized as follows: (1) Bakalash describes a system for storing multidimensional data generally but fails to describe a user interface for setting access rights at all let alone controlling access to both multidimensional data and the transactional data from which it was derived, and (2) it would have been obvious to do so based on Joseph that describes a system for setting access rights to different objects within a network and Beall that describes the use of software downloadable over the Internet to access remotely located information.

However, contrary to the Examiner’s assertion, Applicant’s claimed invention is not merely directed to limiting access to a data cube. The Examiner fails to appreciate that multidimensional data structures are typically separate, distinct structures from relational databases. Multidimensional databases are derived from transactional databases and a linkage from one database to another cannot be presumed, as does the Examiner. The Examiner’s assumption that users can “presumably” access the individual transactions in the Bakalash is likely incorrect and, more importantly, unsupported by evidence in the record.

In conventional systems, users viewing the multidimensional data often have no ability to even view the underlying transactional data. Even if a linkage does exist, mechanisms for securely managing access to multidimensional data and corresponding transactional data do not necessarily exist and is difficult at best. Bakalash and Joseph fail to describe any access control technique that addresses the relationship between the fields of the transactional data and the

members of the multidimensional data and the difficulties in providing fine-grain access control between these separate systems. The “attributes” described by Joseph relate to different objects of within a network (e.g., users or printers), but fail to describe techniques for controlling access between members of multidimensional data and fields of transactional data from which the members were derived. The Examiner’s conclusion of obviousness must be based on substantial evidence in the record. In this case, the Examiner’s conclusions are based on assumptions not supported by evidence within the record. Thus, the Examiner has failed to establish a prima facie case of obviousness.

The invention described in independent claims 1, 6, 9, 14, and 17 is directed generally to allowing secure access to members and dimensions of a multidimensional database as well as to the fields in the transactional relational database from which the members were derived. By providing access rights to both the multidimensional data and to the underlying transactional data, the invention ensures that authorized users viewing the multidimensional data may also view the underlying transactional data should they desire to do so. The claimed techniques provide mechanisms for setting security access where there is a linkage between the members of a multidimensional database and the fields in the transactional database from which the members were derived.

In general, none of the references, either singularly or in combination, teach or suggest access control techniques that provide access control over select members of multidimensional data as well as the specific transactional data from which the members were derived.

For example, with respect to claims 1 and 9, none of the references, either singularly or in combination, teach or suggest presenting a user interface for setting access rights to members of a data cube as well as access rights to transactional data from which the data cube was derived. Similarly, none of the references, either singularly or in combination, teach or suggest formatting a web page based on the set access rights for the data cube and the underlying transaction data, as further required by claims 1 and 9. In other words, claims 1 and 9 require consideration of access rights of a user to both the members of the data cube and the transaction data from which the members were derived when formatting a web page. This is not taught or suggested by substantial evidence of the record.

With respect to claims 2, 3, 9 and 10, none of the references, either singularly or in combination, teach or suggest presenting a user interface for receiving input granting the user access to a subset of members of a dimensional hierarchy as well as a subset of fields of a database storing transactional data from which the members were derived.

With respect to amended claims 4 and 12, none of the references, either singularly or in combination, teach or suggest formatting a web page so that the user can compose an electronic report that includes both members of the data cube as well as the transactional data to which the user has access based on the set access rights.

With respect to amended claims 5 and 13, none of the references, either singularly or in combination, teach or suggest publishing the electronic report to include the members of the data cube to which the user has access and an icon for viewing the accessible transactional data from which the members of data cube accessible by the user were derived.

With respect to claim 7, none of the references, either singularly or in combination, teach or suggest permitting an author of the electronic report to include in the electronic report only multidimensional data to which the author has access based on the set access rights.

With respect to claim 8, none of the references, either singularly or in combination, teach or suggest publishing the electronic report from the interactive environment to include the multidimensional data to which the author has access and a icon for viewing the transactional data; receiving input from a user viewing the electronic report selecting a range of the multidimensional data displayed by the electronic report; determining whether the user viewing the electronic report has access to transactional data corresponding to the selected range of the multidimensional data displayed by the electronic report; and displaying the corresponding transactional data based on the determination.

For at least these reasons, the Examiner has failed to establish a prima facie case for non-patentability of Applicant's independent claims 1, 6, 9, 14, and 17 and claims dependent therefrom under 35 U.S.C. 103(a). Withdrawal of this rejection is therefore respectfully requested.

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CONCLUSION

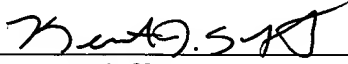
All claims in this application are in condition for allowance. Applicant respectfully requests reconsideration and prompt allowance of all pending claims. Please charge any additional fees or credit any overpayment to deposit account number 50-1778. The Examiner is invited to telephone the below-signed attorney to discuss this application.

Date:

By:

August 8, 2005

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AMENDMENTS TO THE DRAWINGS

Applicant submits herewith replacement drawing sheets for FIGS. 7-9, 25, 27, and 29 for the present application. In particular, in FIGS. 7-9, the instances of overlapping letters have been corrected. In FIG. 25, reference numeral 116 has been added and reference numeral 96 has been deleted. Support for these drawing changes can be found at page 18, line 24 of the present application. In FIG. 27, reference numerals 120 and 122 have been added. Support for these drawing changes can be found at page 19, lines 1-2 of the present application. In FIG. 29, reference numeral "130" has been changed to reference numeral "134". Support for this drawing change can be found at page 19, lines 27-30. No new matter has been added by way of these amendments.